

AMENDMENTS TO THE CLAIMS

The following listing of claims will replace all prior versions and listings of claims in the application.

1-24. (Cancelled)

25. (New) A corrosion inhibiting system comprising:

a substrate formed of a metal;

a material operable to form a coating relative to said substrate to inhibit a corrosion thereof;

wherein said coating includes an oxo-anion having the general formula A_NO_N , wherein A is selected from an element operable to substantially inhibit corrosion of said substrate, O is oxygen, and N is a number.

26. (New) The corrosion inhibiting system of Claim 25, further comprising an aqueous carrier for carrying said oxo-anion to said substrate.

27. (New) The corrosion inhibiting system of Claim 25, wherein said substrate includes a structural component operable to be positioned in a corroding environment to be inhibited by said coating.

28. (New) The corrosion inhibiting system of Claim 25, wherein said coating further comprises an oxidic acid having a general formula of $(H_NA_NO_N)_N$, where H is hydrogen.

29. (New) The corrosion inhibiting system of Claim 28, wherein said oxidic acid is operable to form a polymer of said oxidic acid.

30. (New) The corrosion inhibiting system of Claim 29, wherein said polymer of said is operable to allow release of said oxo-anion to substantially inhibit corrosion of said substrate.

31. (New) The corrosion inhibiting system of Claim 29, wherein said polymer releases said oxo-anion in a moisture rich environment.

32. (New) The corrosion inhibiting system of Claim 29, wherein a supramolecular oxo-anion has a general formula of $(H_N A_N O_N)_N (A_N O_N)_N$;

wherein said supramolecular oxo-anion and polymeric oxidic acid may be substantially water soluble.

33. (New) The corrosion inhibiting system of Claim 32, wherein a supramolecular oxo-anion interconnected with a polymeric oxidic acid in an aqueous solution has a general formula of $(H_N A_N O_N)_N (A_N O_N)_N (H_2O)_N$.

34. (New) The corrosion inhibiting system of Claim 33, wherein said aqueous solution of said supramolecular oxo-anion and polymeric oxidic acid said material is operable to be coated on said substrate to form said coating to substantially inhibit a corrosion of said substrate.

35. (New) The corrosion inhibiting system of Claim 25, wherein said coating is positionable on said substrate according to any appropriate manner operable to form a coating on said substrate of a selected thickness to allow for inhibiting the corrosion.

36. (New) The corrosion inhibiting system of Claim 25, wherein said material further includes a cation;

wherein the said cation is operable to substantially inhibit the propagation of pit corrosion on the surface of said substrate.

37. (New) The corrosion inhibiting system of Claim 36, wherein said cation is selected from a group of transition metals, alkaline earth metals, rare earth metals, lanthanide series elements, or combinations thereof.

38. (New) The corrosion inhibiting system of Claim 36, wherein said material includes a salt formed of said oxo-anion and said cation.

39. (New) The corrosion inhibiting system of Claim 38, wherein said salt is operable to absorb into said substrate.

40. (New) The corrosion inhibiting system of Claim 36, wherein a supramolecule is formed by an interaction of at least one of said oxo-anion and at least one of said cation to form said coating.

41. (New) The corrosion inhibiting system of Claim 40, wherein said supramolecule is operable to be absorbed into said substrate.

42. (New). The corrosion inhibiting system of Claim 25, where said A is selected from a group comprising molybdenum, phosphorous, tungsten, silicon, or combinations thereof.

43. (New) A method of inhibiting corrosion on a metal substrate with a material comprising:

preparing a metal substrate;

forming a barrier, to inhibit corrosion of said metal substrate, of a corrosion inhibitor relative to said substrate;

wherein the coating is formed including:

an oxo-anion including the general formula A_NO_N , wherein A is a selected element, O is oxygen, and N is a number; and

an oxidic acid having the general formula $H_NA_NO_N$, wherein H is hydrogen;

wherein said barrier is operable to inhibit corrosion relative to said metal substrate.

44. (New) The method Claim 43, wherein preparing a metal substrate includes forming a component including an aluminum alloy.

45. (New) The method of Claim 43, wherein preparing a metal substrate includes painting said metal substrate with a material to form a first coating on said metal substrate.

46. (New) The method of Claim 43, wherein forming a barrier relative to said substrate includes at least one of spraying said corrosion inhibitor relative to said substrate, dipping said metal substrate in said corrosion inhibitor, brushing said corrosion inhibitor on said metal substrates, absorbing said corrosion inhibitor into said metal substrate, or combinations thereof.

47. (New) The method of Claim 43, wherein the corrosion inhibitor further includes a cation operable to substantially inhibit propagation of the pit corrosion in said metal substrate.

48. (New) The method of Claim 47, wherein said cation is selected from a group comprising a transition metal, an alkaline earth metal, a rare earth metal, a lanthanide series element, or combination thereof.

49. (New) The method of Claim 47, wherein said oxo-anion and said cation form a salt operable to substantially inhibit corrosion.

50. (New) The method of Claim 49, further comprising absorbing said salt into said metal substrate.

51. (New) The method of Claim 47, wherein said oxo-anion said cation, and said oxidic acid form a supramolecule to substantially inhibit a corrosion relative to said metal substrate.

52. (New) The method of Claim 51, further comprising absorbing said supramolecule into said metal substrate.

53. (New) The method of Claim 43, wherein at least one of said oxidic acid or said oxo-anion form a supramolecule to substantially inhibit the corrosion of said metal substrate.

54. (New) The method of Claim 43, further comprising forming a supramolecule of said oxo-anion and said oxidic acid in an aqueous solution to substantially form the material to form said coating.

55. (New) The method of Claim 43, wherein forming a coating of a material further includes forming a salt of a cation and said oxo-anion.

56. (New) The method of Claim 55, wherein said salt has a general formula of $(D_N)((H_N A_N O_N)_N (A_N O_N)_N (H_2 O)_N)_N$;

wherein D is a metal cation.

57. (New) The method of Claim 43, wherein A is selected from a group comprising molybdenum, phosphorous, tungsten, silicon, or combination thereof.

58. (New) The method of Claim 43, further comprising:
forming a polymer of said oxo-anion and said oxidic acid;
wherein said polymer is operable to allow release of said oxo-anion to substantially inhibit corrosion of said substrate.

59. (New) The method of Claim 58, wherein said polymer releases said oxo-anion in a moisture rich environment.

60. (New) A method of inhibiting corrosion on a substrate, comprising:
preparing a substrate of a metal including aluminum;
forming a material to coat said substrate, including;
providing an oxidic acid;
forming a supramolecule of an oxo-anion and said oxidic acid; and
applying said material to said substrate to form a barrier relative thereto to substantially inhibit a corrosion of said substrate.

61. (New) The method of Claim 60, wherein oxo-anion has a general formula of (A_NO_N) ;
wherein A is selected from a group comprising molybdenum, phosphorous, tungsten, silicon, or combination thereof; O is oxygen, and N is a number.

62. (New) The method of Claim 60, wherein said oxidic acid includes a general formula of $(H_N A_N O_N)$;

wherein H is hydrogen, O is oxygen; A is selected from a group comprising molybdenum, phosphorous, tungsten, silicon, or combinations thereof; and N is a number.

63. (New) The method of Claim 60, wherein said supramolecule includes a polymer of said oxo-anion and said oxidic acid to inhibit a corrosion of said substrate.

64. (New) The method of Claim 63, wherein said supramolecule of said oxo-anion and oxidic acid is hydrated wherein a general formula of the hydrated supramolecule includes $(H_N A_N O_N)_N (A_N O_N)_N (H_2O)_N$;

wherein H is hydrogen, O is oxygen, N is a number, and A is selected from a group comprising molybdenum, phosphorous, tungsten, silicon, or a combination thereof.

65. (New) The method of Claim 64, further comprising:
dissolving said hydrated supramolecule in an aqueous solution for application to said substrate.

66. (New) The method of Claim 65, wherein applying said dissolved supramolecule includes spraying, painting, dipping, or combinations thereof to said substrate.

67. (New) The method of Claim 60, wherein forming a material further includes providing a cation;

wherein said cation is selected from a group comprising a transition metal, an alkaline earth metal, a rare earth metal, a lanthanide series element, or combinations thereof.

68. (New) The method of Claim 67, further comprising a salt of said oxo-anion and said cation.

69. (New) The method of Claim 68, wherein applying said material includes causing said salt to absorb into said substrate.

70. (New) The method of Claim 67, further comprising a supramolecular salt of said oxo-anion and said cation.

71. (New) The method of Claim 70, wherein applying said material includes absorbing said supramolecule into said substrate.

72. (New) The method of Claim 71, wherein inhibiting corrosion of said substrate includes desorbing at least said oxo-anion from said substrate once corrosion begins.